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Measuring Employee Attitudes—A Proving Ground for Personnel Policy and Practices¹

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THE MOST obvious and practical way of learning how employees feel about their jobs, the company for which they work, and the many different aspects of the employer-employee relationship is to go to those employees and ask. This might appear to be a simple process; yet the method of asking and the conditions under which the investigation is made are of great importance if the findings are to be either useful or reliable.

This paper is a description of one method of procedure in measuring employee attitudes and a discussion of certain general findings which have resulted from the application of that method to a number of employee populations. Some fourteen years of experience with various approaches to the problem have contributed to the development of the method here described. These approaches have included the personal interview, both guided and unguided, the "essay" type of questionnaire in which employees are asked to express themselves in writing in their own words, the "True-or-False" questionnaire, and the "Attitude Scale" utilizing a series of simple statements, each of which has been assigned a value or weight on the basis of the combined judgment of a number of judges.

Each of these methods of procedure has its strengths and its weaknesses. The one which has seemed best and

¹This paper was delivered before the thirty-second meeting of the Conference of Personnel Executives of THE CONFERENCE BOARD held October 27, 1939.

which is the basis of the results reported here involve the use of printed questionnaires which are answered anonymously under uniform conditions on company time by all employees of the organization being studied.

QUESTIONNAIRE TECHNIQUE

These questionnaires are designed to meet six requirements:

1. The items are objective in form. Employees respond simply by checking their choice among a number of ready-made answers which are provided with each question. The greatest advantage of this form over the "essay" type of question is that the responses can be treated statistically. Anyone who has experienced the difficulty of tabulating and analyzing the mass of miscellaneous and often irrelevant statements usually produced by an "essay" questionnaire will appreciate the importance of this. Also, the objective type of question can be answered more rapidly and does not penalize the employee who cannot readily express himself on paper.

Space may be provided in which the employee can elaborate or qualify his answers but this added material is usually sketchy and difficult to interpret. Its value must be weighed against the time consumed and the possible suspicion that employees will be identified by their handwriting.

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2. A separate question for each separate idea. This may mean a long questionnaire since it is usually desirable to cover a number of topics, but each question must be limited to a single idea. Attempts to short-cut by covering several concepts in one item invariably result either in confusion or in inadequate information.

3. Opportunity is offered for the expression of varying shades of opinion. Where people are forced to make a categorical choice between the answers "Yes" and "No" on a given question they often feel that neither really expresses their opinion. Sometimes it is necessary, or desirable, to insist upon a choice between the two, but even in legislative procedure there is opportunity to amend before the final vote is taken. A slight change in wording can sometimes change the vote considerably.

These difficulties are avoided by the use of multiple-choice questions. A question of general feeling toward the company, for example, is phrased as follows:

"In your opinion, are there other companies in (this city) which treat their employees better than (this one) does?"

- () All of the others are better
- () Most of the others are better
- () About the same
- () This company is better than most others
- () This company is best of all

In the phrasing of the answers provided, it is important that the employee be afforded equal opportunity to express either approval or disapproval. With such a range of answers the wording of the body of the question becomes relatively less important since the fine shades of opinion are provided in the answers, rather than in the question itself.

4. The questionnaire shall contain no propaganda. Often there is a strong temptation to do a bit of selling or employee education in connection with studies of employee attitudes. Questionnaires are occasionally used as propaganda devices, but when this is done they should be recognized as such and not confused with research.

5. Insofar as possible, the items are standardized. Because the basic ingredients of the employer-employee relationship are essentially the same in all companies, it is possible to incorporate a number of identical questions in study after study, thus building up standards which will aid in the interpretation of results secured in subsequent investigations.

6. Questions contain only simple, commonly used words. It has been helpful to check the vocabulary used against the first ten thousand words listed in Thorndike's "Teacher's Word Book." The use of expressions and words which have acquired a special meaning within

an organization must also be questioned. Often the executives of a company are thoroughly familiar with special company terminologies and mistakenly assume that these terms must have the same connotation to their employees.

Since the circumstances under which these questionnaires are answered can have a very real effect on the nature of the replies, it is necessary to control the testing procedure carefully. A testing room (usually the company cafeteria or restaurant) properly equipped with tables and chairs is set up and groups of employees are scheduled into it at hourly intervals. Each group receives the same explanation and instructions. The mechanics of distributing and collecting the questionnaires are such as to make it apparent that the answers will be anonymous. It is pointed out that an effort is being made to give every employee an opportunity to express his *own* ideas in complete confidence without interference or distraction. No executives of the company are permitted in the room while the questionnaires are being answered, and, since the study is conducted by an outside agency, employees are given the further assurance that no one connected with the company will ever see any of the individual replies.

In physical appearance the questionnaire is simply a printed booklet containing between fifty and 100 consecutively numbered questions, but in the analysis of the replies it is regarded as having two separate and distinct sections. The first of these, really a questionnaire within a questionnaire, is a carefully standardized measure of general employee "morale" made up of a series of broadly phrased items which ask in a variety of ways "How do you like your job?" and "Is this a good company to work for?" Each individual employee's answers to this series of questions are "graded" and combined into a "Morale Score" in much the same way that a school teacher grades and scores her pupils' answers to an arithmetic examination, except, of course, that answers are graded as favorable or unfavorable rather than as right or wrong.

The remainder of the booklet is made up of items dealing with specific factors such as working conditions, hours, pay, quality of supervision, and company policies. Answers to the specific questions are tabulated individually and, as will be explained subsequently, are also correlated with the Morale Score.

THE MORALE SCORE

There are two prerequisites implied in measurement of any description: a definition of the thing to be measured and a standardized tool or instrument by which the measurement may be accomplished.¹

¹The reader who is interested in the statistical procedures used in the development of the scale described is referred to Kolstad, "Employee Attitudes in a Department Store," *Journal of Applied Psychology*, Vol. XXII, No. 5.

Although the term "Employee Morale" is widely used, it is a more or less undefined concept whose meaning is simply taken for granted. This lack of a clear definition becomes very apparent when an attempt is made to measure morale objectively. It is insufficient to say that morale is the way people feel about their jobs; that broad generalization must be broken down into a series of more concrete elements about which questions can be asked.

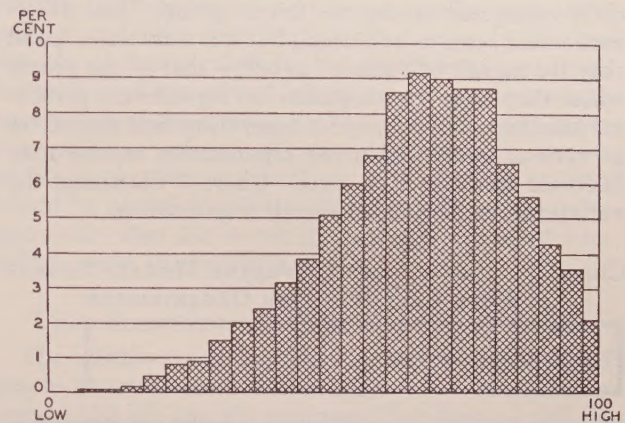
The definition of morale used in the studies here described can be illustrated by listing ten attitudes or beliefs which characterize the employee who makes the highest possible morale score on the questionnaire. The employee who has a morale score of 100, the maximum on the scale used:

1. Believes his company to be one of the very best of all companies as a place to work.
2. Thinks the management of his company cares more about the welfare of its employees than does the management of any other company.
3. Knows of no other company where he would rather work if he could get an equally good job elsewhere.
4. Blames himself and not the company for any dissatisfaction he may have experienced on the job.
5. Thinks the company does much more than one might expect to promote good working relationships between himself and the people with whom he works.
6. Feels that he is really regarded as a part of the organization.
7. Thinks the management always fair with people in jobs such as his.
8. Thinks the people just above him are always fair with him.
9. Knows of no other company that treats its employees as well as his does.
10. Believes that he can be sure of his job as long as he does good work.

Exactly the opposite attitudes would be held by an employee whose score is zero, the lowest possible on the scale used. He thinks his company one of the very worst, believes the management and his superiors to be consistently unfair, would rather work in any other company if he could get a job, and so on.

Scores of either zero or 100 are extremely rare because the great majority of workers have attitudes somewhere between these two extremes. It is fallacious to think of employee morale as being either good or else bad, one or the other, just as it is to attempt to classify all people as being tall or short. Most people are in between.

CHART 1: COMBINED DISTRIBUTION OF EMPLOYEE MORALE SCORES—ELEVEN EMPLOYEE POPULATIONS



When a large number of employees are arranged according to their morale scores we find most of them somewhat above the middle of our zero-to-100 scale with comparatively more at the extremely high levels than at the extremely low end. Chart 1 shows such a distribution made up of a combination of eleven separate employee populations from companies engaged in different types of industrial and commercial activity.

All "rank-and-file" employees including office workers and laborers, salaried employees and hourly-paid men and women, skilled labor and unskilled, are included in this sample. Since opportunities to secure data have been found only in companies which have placed relatively greater emphasis on personnel problems and employee relations, this picture is necessarily representative only of a selection of "better" companies.

The tendency toward scores well above the mid-point of the scale may be explained in part by the selection of "better" companies, but it seems not improbable that employees in general may develop a degree of loyalty toward their own companies just as people normally develop loyalty toward their own schools or towns.

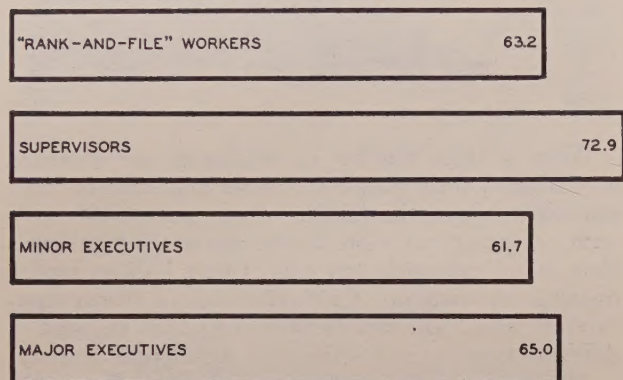
Having calculated a morale score for each individual on the basis of his answers to the general morale questions, it is easy to arrive at average scores for the total group and for various subgroups within the company. For example, the average morale of male employees can be compared with that of women or salaried employees can be compared with those on time cards. Three comparisons of this type seem particularly worthy of mention here: a comparison of managerial employees with "rank-and-file," an analysis in terms of length of service, and comparisons of average scores within separate departments.

Comparing "Bosses" and Workers

In the typical study supervisors, foremen, department managers, and other "supervisory" employees are

found to have morale scores significantly higher than those of the "rank-and-file" with low scores being especially infrequent among the former group. This difference would seem to be normal, but it is sometimes found that the morale of "bosses" is below that of the people whom they boss. In companies having different personnel handlings and policies for supervisors and executives at various levels within the organization morale may fluctuate from level to level. Chart 2 illustrates the variation observed in one such organization.

CHART 2: COMPARISON OF AVERAGE MORALE SCORES AT FOUR LEVELS IN ONE ORGANIZATION



Comparing Employees of Varying Lengths of Service

Comparisons of the morale scores of employees who have been employed by a given company for different lengths of time have consistently shown that morale decreases with length of service during the first five to ten years. The trend is usually reversed at this point with the employees of longer service sometimes exceeding all other groups, but this is not always the case.

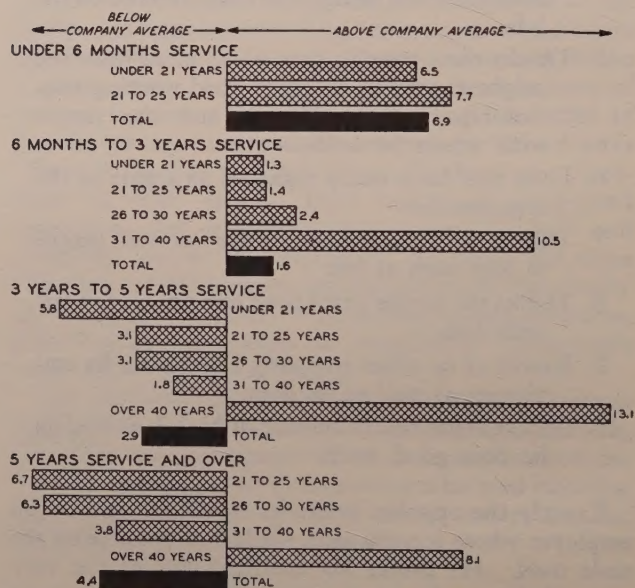
We can only speculate as to why this situation exists, but there is probably a process of disillusionment involved in the average worker's adjustment to the job. He is filled with enthusiasm at first, the job is more interesting because it is new, he is learning something every day and can see his productivity increase as he learns, his hopes may be high. Perhaps this sense of achievement is lessened after the early period of easy progress is past; certainly there is no opportunity for all ambitious or hopeful newcomers to get ahead as fast as they may at first hope.

Employees who remain on the payroll for more than five or ten years are a selected group, having survived the constant process of elimination through dismissal or resignation. If they are of outstanding ability that ability may have been recognized. Those who have not advanced have accepted the fact that there is not room at the top for all and have perhaps resigned themselves to their fate, a fate which does not seem so bad after all.

The higher average morale characteristic of newer employees is not explained by their having secured their jobs during the depression when work has been hard to find, for the same pattern is found in studies made prior to 1929.

Because chronological age is highly correlated with length of service it is to be expected that employees who are older in years tend to have lower morale scores. Interestingly enough, however, when employees of different ages within a single length-of-service bracket are studied it is found that morale tends to increase with age. Chart 3 illustrates the results of such a subdivision in one company. Attention is called to the "total" bars which show a progressive decrease in morale among the length-of-service groups and to the contrasting increase with chronological age within the separate length-of-service brackets. The number of employees over twenty-five years of age in the less-than-six months bracket and the number over forty in the six-months-to-three-years bracket were negligible and they are therefore not included in the graph, but their average scores also fitted into the pattern illustrated.

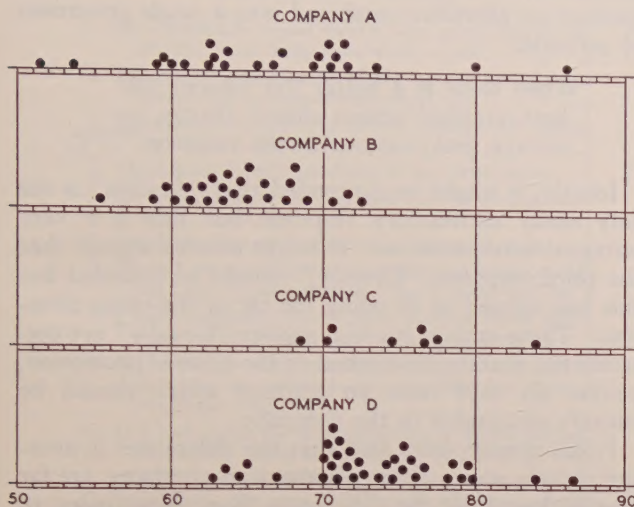
CHART 3: MORALE SCORES BY AGE GROUPS WITH LENGTH OF SERVICE HELD CONSTANT



Opportunities to study the attitudes and morale of new employees over forty have been limited because they make up so small a part of the average company's personnel, but the evidence available indicates that business need have no hesitation about hiring the older applicant, at least so far as probable attitudes toward the company and the job are concerned.

CHART 4: HOW DEPARTMENTS VARY IN AVERAGE MORALE SCORES—FOUR COMPANIES

EACH SYMBOL • REPRESENTS THE AVERAGE FOR ONE DEPARTMENT



Variations in Morale from Department to Department

The morale score is of greatest practical value as a device for determining the attitude level in the different departments or parts of an organization. Considerable differences in average morale score from department to department have invariably been found, even in situations where all employees worked under the same roof with the same "top" executives and under the same general personnel policies.

Chart 4 illustrates this spread from department to department as observed in recent studies of four organizations. While there are real differences in average morale scores between the four companies it can readily be seen that the variations from department to department within a single company are far greater. The spread in Company A is particularly marked. As a whole, Company A scores somewhat higher than does Company B, yet there appears to be a relatively higher degree of consistency in personnel administration and practices in Company B, since its department scores cluster more closely about the average. These differences can be explained only by differences in the personality and personnel ability of the executives and managers who have direct supervision of the several departments. Employees who are fortunate enough to be assigned to departments or activities supervised by executives skilled in the art of "handling" people can be expected to have high morale scores. Those less fortunate people who have to spend their working lives under the boss who is not a good personnel man or woman are not to be censured if they develop unfavorable attitudes toward the job and the company.

It has often been said that the average worker's attitude toward the company is largely determined by his

attitude toward his boss. The evidence from these studies offers strong support for this statement. The officers of a corporation may cause excellent personnel policies and high standards of practice to be written into the company rulebook, but department managers, foremen, and the other bosses who have immediate supervision of the workers are the ones who must make most of these policies and standards effective. As far as the worker is concerned, the acts of the boss with whom he has all his day-to-day contacts are far more important than the words of some top executive who is little more than a name to him.

THE ANSWERS TO SPECIFIC QUESTIONS

The morale score described in the preceding paragraphs provides an over-all measure of total attitudes toward the job and the company, but does not tell us how employees feel about the many specific factors such as pay, hours, quality of supervision, working conditions, and company policies. Separate detailed questions are asked on these points. Most of these questions are of the multiple-choice form. An item dealing with promotion, for example, is worded:

"When there is a better job vacant, how often do you feel that the best-qualified person gets promoted to it?"

- () Rarely () Usually
() Sometimes () Almost always
() Always

Two questions on instruction which have been found to produce particularly useful data are:

"How much instruction do you get when you are given new work or new methods on the job?"

- () Practically no instruction at all
() Not nearly as much as I would like
() Almost as much as I would like
() All that I could wish for

"When difficult problems come up in your work, how free are you made to feel about asking questions?"

- () Not free at all
() Reasonably free
() Completely free

Other typical questions:

"If you were to give your boss a good suggestion for a new and better way of doing a job, how likely would you be to get credit for it?"

- () I would never get credit for the suggestion
() I probably would not get credit
() I probably would get credit
() I would be sure to get credit

"How do you feel that your pay compares with the pay for work of about the same importance or difficulty in other jobs in this company?"

- () The pay for my job is lower than for any of the other jobs in this company that are equally important
- () Lower than for most of the other equally important jobs
- () About the same
- () Higher than most
- () Higher than any

"How do you feel the pay for your job compares with the pay for the same sort of work in other companies?"

- () My pay is lower than in any other company for the same sort of work
- () Lower than in most other companies
- () Higher than in most of the others
- () Higher than in any of the others.

"If you had any cause for dissatisfaction what would your chances be of getting a fair hearing and a square deal?"

- () Very little chance if any
- () Poor
- () Fair
- () Reasonably good
- () Very good

Since a single questionnaire contains from fifty to 100 such items, most of which are tabulated separately for each department as well as for the total employee population, the volume of data which accumulates in the analysis is tremendous. Some method of summarization is needed. This is accomplished by arbitrarily selecting one or more of the answers from each question as being indicative of satisfaction and reporting a single "Percentage of Satisfaction" figure for the item. By this means employees are divided into two groups, the "Well-satisfied" and the "Not-so-well-satisfied."

Consider the question on promotion cited above as an illustration. Five answers ranging from "Rarely" to "Always" are provided. In nine organizations where the question has been used in exactly the same form the total answers have divided as follows:

Rarely.....	15%
Sometimes.....	36
Usually.....	21
Almost always.....	18
Always.....	9
No answer.....	1
	<hr/>
	100%

The two more favorable "Almost always" and "Always" have been considered as indicative of practical satisfaction and the percentages from these two responses are therefore combined into a single statement of attitude:

"When there is a better job vacant, the best-qualified person almost always, or always, gets promoted to the vacancy." 27%

Ideally, it might be contended that "Always" is the only really satisfactory response but this is a very stringent interpretation. It might also be argued that the third response, "Usually," should be included but this has seemed to be going too far in the other direction. Those employees who answer "Usually" are certainly not acutely dissatisfied on the score of promotion, neither do they hold an attitude which should be entirely acceptable to the company.

It has already been said that the differences in average morale scores from company to company are far overshadowed by the differences from department to department within single organizations. This is equally true of the percentages of satisfaction on specific topics such as promotion. Among the nine employee populations included above, the percentage of satisfaction by company ranged from a low of 20% to a high of 36%, but for individual departments within these companies the range is from 0% to 70%. Similar wide variations are found in almost all the other specific topics studied.

Table 1 illustrates this variation on twelve topics as observed among the twenty-four departments of one organization. Item 1 shows that less than 40% of the employees in one department felt the boss really knew what sort of work they were doing. In contrast with this, there were three departments in which over 80% held this attitude. The other twenty departments fell between these extremes.

Item 10 shows even greater variation. Less than 30% of the employees in one department were satisfied that they would have at least a reasonably good chance of getting a fair hearing and a square deal on a grievance, while 100% in another department held this attitude.

The picture presented in Table 1 is not exceptional, in fact we can expect to find some very high departments and some very low ones in any company. This is because there are some good bosses and some poor ones in practically every organization. The differences between departments can be explained in no other way. Most of the attitudes reported are created in large part by the bosses and must be regarded as products, or at least by-products, of their supervisory activities. A measure of employee attitude is, more than anything else, a measure of the boss's performance as a boss.

It is helpful to think of a department manager's, or a foreman's, job as having two parts: First, he must have the technical skills and knowledge necessary for his

TABLE 1: VARIATIONS IN PERCENTAGE OF SATISFACTORY ATTITUDE OBSERVED IN TWENTY-FOUR DEPARTMENTS OF ONE ORGANIZATION

"SATISFACTORY" ATTITUDE	Number of Departments in which Percentage of Satisfaction is:									
	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100
1. My immediate bosses have a very good idea as to whether I am doing good work or not.....	..	..	1	..	4	9	7	3	..	..
2. The people immediately above me are practically always fair in their treatment of me.....	2	6	5	4	5	1	1	..	..	..
3. Employees are rarely, or never, "bawled out" when they do not deserve it.....	..	3	1	3	4	5	4	4	..	..
4. There is no favoritism shown in my department...	5	6	5	5	..	3	..	..	..	..
5. My supervisor never interferes with or hinders my work.....	1	1	2	2	10	7	..	1	..	..
6. Employees are praised for unusually good work....	1	1	1	5	5	4	4	3	..	..
7. When I am given new work or new methods on the job I get all the instruction that I could wish for..	..	2	6	5	6	4	..	..	..	1
8. I feel completely free to ask questions about difficult problems which may come up in my work....	..	..	1	3	4	9	3	4	..	..
9. If I were to give my boss a good suggestion for a new or better way of doing a job, I probably, or surely, would get credit for it.....	..	..	..	1	7	7	3	6	..	..
10. If I had cause for dissatisfaction, I would have a reasonably good, or very good chance of getting a fair hearing and a square deal.....	..	1	4	5	1	8	3	..	1	1
11. In general, the amount of work expected of me is reasonable .....	..	..	..	4	2	4	5	7	1	1
12. A person in a job such as mine will usually, or always, get an increase in pay when he deserves it..	1	2	7	6	7	..	1	..	..	..

particular trade and must know how to use them. His performance here is reflected through a variety of physical and financial measures of achievement such as production records, cost ratios, payroll ratios, sales, returns or spoilage, and profit and loss statements. Second, he must be a good personnel man; he must be able to work with people as well as with things and ideas. Because this second part of the job is not ordinarily measured or audited, it is only natural that it does not receive the attention it deserves. Yet every person who has direct supervision over a group of workers is producing mental attitudes, either favorable or unfavorable, among his subordinates just as surely as he is producing goods or services.

One of the most important conclusions to be drawn from these studies is that no corporation president or industrial relations manager is justified in generalizing about the level of employee attitude within his organization. There is no such level. Employee morale and attitudes can be described in terms of averages, but unless it is clearly recognized that there are strong spots and weak spots hidden within those averages such a description may be entirely misleading.

The reader may protest at this point that the topics set forth in Table 1 as illustrations deal almost entirely with supervision rather than with those broader matters of policy which are controlled from the top of the organization. This raises an important question: "Granting that the employee whose misfortune it is to work under a poor boss does develop unfavorable attitudes as a result, are not these unfavorable attitudes

directed toward that boss rather than toward the management of the company? Can't this employee see that the company itself means well and is trying to make him a happy and therefore more productive worker?"

The answer is largely in the negative. All our evidence supports the thesis that to the worker the boss is the company. For example, two very similar questions dealing with fairness are asked: "How fair do you feel that the people immediately above you are ---?" and "To what extent is the management fair ---?" In general, the answer to the former seems to determine the answer to the latter. If employees distinguished clearly between the two we would expect to find all departments answering the question about management's fairness in much the same way since they all operate under common management and common company policies. But this is not the case. Employees who say their boss is fair also feel the management to be fair. Employees who say their boss is unfair also feel the management to be unfair.

THE RELATIONSHIP OF SPECIFIC FACTORS TO GENERAL MORALE

The "Percentage of Satisfaction" described above is a quantitative measure which tells us the amount of satisfaction or dissatisfaction existing within a company or a department on each of a number of topics. This quantitative measure alone is not enough. Some measure of the relative importance of the various topics is needed.

Obviously, certain factors or topics are much more important to general morale than are others. Employee dissatisfaction on one topic may have little or no effect on general morale, while dissatisfaction on another may be accompanied by alarming decreases in morale. The personnel manager wishes to know which of the many factors or topics are of greatest importance so that he may give them first consideration in the development of his personnel program.

Such a measure of importance is achieved by dividing the employee population into a "Satisfied" group and a "Not Satisfied" group on each specific question and then comparing the average morale scores of the two groups. When this is done for certain topics it is found that little or no difference in morale scores exists. These topics are then said to be of little importance to morale. When the calculation is repeated for other topics the resulting differences are startlingly large and these topics are said to be of great importance to morale.

Although a given factor may prove to be of relatively greater importance in some companies than in others, there is enough consistency in results from study to study to permit certain general conclusions. Generally speaking, the purely material considerations such as

wages, hours, and physical working conditions are of less importance to employee morale than are the intangibles such as quality of supervision, recognition of the individual's personality, and fairness in treatment.

This is not meant as a naive assertion that pay, hours, and working conditions are unimportant. Our studies have shown, however, that these things in themselves are not enough to produce good employee morale. Groups of employees working short hours in excellent physical surroundings have been found to be very low in morale because they were given no psychological satisfactions in their work and because their superiors failed to treat them as human beings.

Results from a series of studies suggest that employers and labor leaders alike have concentrated their attention on the tangibles of the employer-employee relationship to the neglect of equally important intangibles. Giving the worker more pay for fewer hours of work is a spectacular accomplishment. Giving him courteous and considerate treatment, competent instruction, and the respect due him as an individual may be less spectacular but will bring dividends of loyalty and cooperation which cannot be bought. Man does not live by bread alone.

Skilled Labor Shortage?

MARKED increase of manufacturing activity during the autumn has again raised the question of the adequacy of the skilled labor resources in this country. The problem is most acute in the metal-working industries for the reason that thorough training in the more important crafts in these industries usually requires considerable time, and, therefore, a developing shortage of competent craftsmen cannot be quickly rectified.

To learn whether a serious skilled labor shortage impended, THE CONFERENCE BOARD asked a number of representative companies, mainly in the metal working industries, to indicate whether they, as yet, found it impossible to secure qualified craftsmen who were actually needed and who would be employed if available. Of 180 companies giving information on this point, 78, or about 44%, indicated that they were already unable to secure certain types of craftsmen that were needed. The remaining 102 companies had so far been able to fill their needs. With regard to the question whether any substantial increase in activity would create a serious situation, about 68% of companies replying were certain that it would, and an additional 15% felt that this probably would be the case.

Thus, over 80% of the companies are fearful that skilled labor available is hardly more than adequate for present needs.

Companies were asked to designate occupations in which actual shortages already existed. The first twelve occupations in order of which the largest number of craftsmen were needed are: All Around Machinists, Toolmakers, Welders, Molders, Sheet Metal Workers, Engine Lathe Operators, Die Makers, Turret Lathe Operators, Milling Machine Operators, Automatic Screw Machine Set-Up Men and Operators, Grinders, and Gauge Makers.

In addition to these, a smaller number of craftsmen were needed for such occupations as First Class Benchmen, Mechanical Inspectors, Skilled Draftsmen, Machine Repair Men, Brass Molders, Pipe Fitters, Polishers, Lock Fitters, Punch Press Operators, Keller Machine Operators, Aircraft Engine Designers, Aircraft Engine Layout Men, Experimental Mechanics, Drill Press Operators, Patternmakers, and Erectors.

Shortages outside the metal trades were in wood-working—Cabinet Makers and Wood-Working Draftsmen, and, in textile industries—Loom Fixers and Weavers.

Chronology of Events Affecting Labor Relations November, 1939

November

- 1 *War Bonus for Sailors*—United States Lines sign agreement with National Maritime Union to pay bonuses ranging from \$30 to \$40 a month to unlicensed personnel employed in ships entering war zones. Company also agrees to insure personal effects of men up to \$150.

Large Gain in Employment—Steel industry announces employment of 75,000 additional workers during last three months.

N.L.R.B. Rules Against Western Union—Western Union Telegraph Company ordered by N.L.R.B. in unanimous decision to withdraw all recognition from 20-year-old Association of Western Union Employees and to repay all amounts deducted from pay of employees since 1935 as dues of the association.

- 2 *\$600,000 in Bonuses*—International Shoe Company announces bonus distribution which will amount to an extra week's pay for all employees earning less than \$50 per week.

Railroad Wage Committee Named—Wage-Hour Administration announces appointment of committee of twelve to study question of minimum wage for railroad industry. Committee is authorized to investigate conditions and recommend highest minimum wage up to 40¢ an hour that will not substantially curtail employment.

- 3 *Western Union Appeals*—Appeal from the ruling of the N.L.R.B. is filed in Circuit Court of Appeals by Western Union Telegraph Company.

Hearing on Exempting Learners—Wage-Hour Administration announces shoe manufacturers will be given hearing on November 20 on petition to employ learners for less than statutory minimum wage of 30¢ an hour.

- 4 *Cost of Strikes*—Unofficial estimate places the cost of the Chrysler Corporation strike to the corporation, to employees and to local business as \$24,000,000 to date.

Gain in Closed-Shop Agreements—United States Department of Labor reports an estimated 3,000,000 workers of the 8,000,000 union members in the United States are covered by closed-shop agreements. Industries high in closed-shop arrangements include coal mining, clothing, printing, brewing, motion picture production, and fur and hat manufacturing.

- 6 *Learners' Rate for Textiles Set*—Wage-Hour Administration permits employment of learners in textile industry at 25¢ an hour for period of six weeks. The minimum wage for the industry is 32½¢ an hour.

- 8 *Wage Dividend for Employees*—Eastman Kodak Company announces wage dividend of approximately \$2,444,000 to be paid to employees on March 25.

Court Upholds N.L.R.B.—Third Circuit Court of Appeals upholds order of N.L.R.B. against Republic Steel Corporation and directs reinstatement of about 5,000 employees and payment of "lost" wages estimated at \$7,500,000.

- 9 *Further Step Toward A.F.L.-C.I.O. Peace*—Successful calls on the President by William Green and John L. Lewis interpreted as further step toward bringing labor federations together.

- 10 *State Training Program*—Governor Baldwin of Connecticut announces a trade school "Job Program" offering immediate prospects of employment to those who successfully complete a 200-hour course of intensive training. The program is intended jointly for unemployed young people and for older men who will be given a chance to "brush up" and regain lost skills.

No State Aid for Strikers—Michigan Unemployment Compensation Commission rules three-to-one that employees of Chrysler Corporation idle on account of labor difficulties are not entitled to unemployment compensation. Ruling is based on provision of state law that disqualifies for benefits an individual whose unemployment is due to a labor dispute.

- 11 *Sharp Rise in Activity*—New York State Department of Labor announces largest advance recorded in October in 26-year period covered by department's figures. Employment in state factories increased 3.7% from middle of September to middle of October, and payrolls advanced 6.2%.

- 15 *Labor Monopoly Held Legal*—Judge Colden in Queens County (New York) Court upholds the right of a union and an employer to combine to create a monopoly within a specified trade or industry.

- 18 *C.I.O. Wins Recognition*—Status of equality with A.F.L. as representative of American labor is regarded as achieved through the appointment by the President of a C.I.O. as well as an A.F.L. delegate to conferences of the International Labour Office.
- 19 *Labor Warned of Anti-Trust Laws*—Assistant Attorney General Thurman Arnold warns labor that certain types of union activity are "Unquestionable violations of the Sherman Act" and indicates prosecution will follow the commission of illegal actions.
- 20 *Invalidation of Closed Shop Upheld*—By a two-to-one decision United States Circuit Court of Appeals upholds N.L.R.B. in invalidating a closed-shop contract between the International Association of Machinists (A.F.L.) and the Serrick Corporation covering toolroom employees. N.L.R.B. had ordered that company grant exclusive bargaining rights to the United Automobile Workers of America (C.I.O.).
- 21 *Foremen Union Issue Develops*—The deadlock in the Chrysler strike situation is further complicated by the receipt of a demand from the United Foremen and Supervisors Local Industrial Union Number 918 (C.I.O.), claiming to represent a majority of the foremen in the Dodge Truck plant, that company meet with union bargaining committee. Chrysler president accuses C.I.O. of intention to "sit on both sides of the conference table" in the settlement of grievances.
- 22 *Thanksgiving Stock Distribution*—Richman Brothers, clothing manufacturers, distribute to 2,500 employees 12,000 shares of stock valued at \$450,000, purchased by employees for \$360,000. Since first distribution in 1920 more than 100,000 shares, with a present value of about \$4,000,000, have been issued to employees. This constitutes about one-sixth ownership of the business.
- 22 *Wage-Hour Law Right Upheld*—Federal Judge Holly rules in Montgomery Ward and Company case that Wage-Hour Administration has right to demand books of private company for examination.
- 23 *General Electric Announces Bonus*—Employees of the General Electric Company will receive additions to their regular earnings for 1939 amounting to about \$4,750,000. Of this, \$2,400,000 is a distribution of profits to employees and \$2,350,000 has been paid as a cost-of-living adjustment to wages.
- 25 *Permanent Union Contract Barred*—New York State Labor Relations Board rules that it would be illegal to permit a labor union to acquire the right to represent a company's employees in perpetuity through the execution of a collective-bargaining agreement.
- 28 *Agreement Reached in Chrysler Strike*—The 54-day-old suspension of operation in plants of the Chrysler Corporation expected to end as result of agreement reached. Terms of settlement must first be submitted to union locals for ratification before they become effective.
- N.L.R.B. Evidence Challenged*—Sixth Court of Appeals at Cincinnati refuses petition of N.L.R.B. to enforce its order against the Empire Furniture Corporation on the basis that order is not supported by the evidence in the case.

Notes on Personnel Administration

"Public Policy and Labor Disputes"

UNDER the title "Public Policy and Labor Disputes" the Manufacturers Association of Connecticut has issued for the information of its members a useful booklet giving the status of various legal aspects of employer-labor relations according to Connecticut law as interpreted by Connecticut courts. In explanation of the purpose of the booklet, the Foreword states that "This memorandum concerns itself with the boundaries set by public policy as defined by the statutes and decisions of the courts of Connecticut, of lawful concerted action by employees

in their efforts to induce employers to meet their demands. It is also designed to afford an elementary acquaintance with the substantive rights, remedies and redresses involved therein."

The pamphlet is notable in that the subject is treated concisely and with remarkable freedom from technical words and phrases, so that the layman can grasp the essential points without difficulty. While it is not intended to replace professional service, it gives the employer valuable information that should be of substantial assistance in avoiding violation of state law. The Table of Contents, reproduced on the next page, indicates the scope of the pamphlet.

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- (8) Preventing laborers joining unions
- (9) Blacklisting
- (10) Corruption of employees

MEDIATION AND ARBITRATION

How Many Apprentices Are There?

With the increasing demand for skilled men, the question of the number of apprentices in training becomes more and more important. The *American Machinist* in citing the excellent work done by the Detroit Employers Association in encouraging skill training gave the following statistics:

"In Detroit there are 932 four-year apprentices being trained in 25 plants under the auspices of the association, and about 900 more are enrolled in the Ford Apprentice School. Neither group includes persons being given instruction in semiskilled occupations or older men being retained for better positions in the shop.

"The present number of apprentices in Detroit is made up of 292 machinists, 285 tool and die makers, 18 templet and wood workers, 40 pattern makers, 25 molders and core makers, 40 draftsmen and designers, 103 maintenance workers such as millwrights and electricians, and 129 miscellaneous occupations of which many are peculiar to the automotive industry."

Other employer associations may find it of value to compare the Detroit figures with those of their own city.

Membership in White Collar Union

The Labor Research Association estimates that unions covering white collar workers have a combined membership of over 700,000. It is explained that figures are based partly on a memorandum prepared by the Division of Economic Research of the National Labor Relations Board and partly on figures of the A.F.L. and C.I.O. membership reported as of the autumn of 1938. Where 1939 figures are available, they are given in a footnote. About 55% of the total reported are in A.F.L. unions. The membership by unions follows:

Fall, 1938
 Membership

AFL AFFILIATES

American Federation of Government Employees.....	21,200
American Federation of Musicians ¹	100,000
American Federation of Office Workers ²	7,000
American Federation of State, County and Municipal Employees.....	20,000
American Federation of Teachers ³	22,100
Associated Actors and Artists of America ⁴	17,600
Brotherhood of Railway Clerks.....	91,000
Commercial Telegraphers.....	2,900
International Draftsmen's Union.....	1,800
National Federation of Post Office Clerks.....	38,000
Railway Mail Association.....	21,700
Retail Clerks International Protective Association....	46,700
Scenic Artists (New York City) ⁵	1,276
Telephone Operators Department ⁶	3,000

CIO AFFILIATES

American Communications Association.....	13,220
American Newspaper Guild ⁷	17,753
Federation of Architects, Engineers, Chemists and Technicians.....	7,525
State, County and Municipal Workers of America ⁸ ...	52,111
United Federal Workers.....	15,120
United Office and Professional Workers of America...	46,575
United Retail and Wholesale Employees ⁹	52,617

INDEPENDENT

Authors League.....	1,500
National Federation of Federal Employees ¹⁰	75,000
United National Assn. of Post Office Clerks of the U. S.	45,000
Screen Directors Guild.....	a

¹Reported 130,794 in summer, 1939.

²Not an international union.

³Reported 35,000 in spring, 1939.

⁴Reported 30,000 in August, 1939; consists, among others, of Screen Actors Guild, American Federation of Radio Actors, Chorus Equity Assn., American Guild of Musical Artists and, until July, 1939, of American Federation of Actors whose charter was revoked and the American Guild of Variety Artists chartered instead.

⁵Affiliated to Brotherhood of Painters of America.

⁶Of International Brotherhood of Electrical Workers.

⁷Reported 18,575 in July, 1939.

⁸80% of its membership consists of white collar workers; membership reported to have increased 3,000 by spring, 1939.

⁹Membership reported to have risen 17,000 by spring, 1939.

¹⁰Of which Screen Writers Guild, with 700 members, is an affiliate.

a Membership not reported.

Rome Cable Corporation—Employee Dividend-Sharing Plan

On May 15, 1939, the Rome Cable Corporation, Rome, New York, joined the growing list of companies that are sharing profits in some manner with employees under a well-defined plan.

The basis of each employee's participation will be determined by taking his total earnings for the previous calendar year and dividing this amount by the book value of each share of Common Stock as of March 31 in each year. The resulting figure will be the number of participating shares on which the employee will receive a dividend, at the same rate per share when and as paid to stockholders, adjusted by the following service rating:

3 years' service.....	100% participation
2 years' service.....	50% participation
1 year's service.....	25% participation
Less than 1 year service.....	no participation

A Case of Union-Management Cooperation

In a closed-shop contract involving several groups of technicians and craftsmen in the theatrical industry an interesting method of adjusting questions regarding wages and working conditions has been set up. The method is described by the following quotation from the contract:

The wage rates and working conditions established by the Company in accordance with the aforementioned contract have been made by agreement between the duly authorized representatives of Local No. . . . and the duly authorized representative of the Company. These wage rates and working conditions shall not be altered except through the operation of the Relations Committee to be set up hereinafter.

The Relations Committee, as thus modified, shall consist of four representatives of Union Local No. . . . to be selected in accordance with Section 7 hereinafter; of three representatives of Union No. . . . ; of two Representatives of District No. . . . ; of one representative of Union No. . . . ; and of not less than three representatives of the Company. The representatives of the unions shall be considered as one group, hereinafter to be called the A.F. of L. representatives. The Company at its option may have any number of representatives up to the total number of A.F. of L. representatives.

At least one, but not more than two union representatives on the Relations Committee shall hold office in the Union and shall not be employed by the Company, and at least two, but not more than three representatives of the Union shall be members of the Union who are employed by the Company. The method for selection of these representatives shall be determined by the Union in accordance with its own by-laws. The Secretary and President of the Union shall certify to the Relations Committee its duly qualified representatives thereon.

The Relations Committee shall establish its own regulations relative to procedure. Decisions of the Relations Committee shall require the consent of the majority of the American Federation of Labor representatives and the

majority of the Company representatives. All decisions of the Relations Committee shall be binding upon the Company and upon the Union and shall have the same force and effect as if they were directly incorporated in this agreement.

In case of failure to secure agreement in the Relations Committee between the Company and the A.F. of L. representatives, the A.F. of L. representatives acting as a group, and the Company acting as a group, shall each designate one Negotiator. Each side shall designate its negotiator within seven days after receipt of a written request for such action from the A.F. of L. representatives or from the authorized representatives of the Company. The two negotiators shall meet within ten days of the date of the receipt of the request for the appointment of negotiators and shall then make an effort to arrive at an agreement; and such agreement, if and when arrived at, shall have the same force and effect as a decision of the Relations Committee.

In case of failure of the two negotiators to reach an agreement relative to the disputed issue or issues they shall agree upon a third impartial negotiator within forty-eight hours of such failure to reach an agreement relative to the disputed issue or issues and the decision of this negotiation committee of three, constituted of the two original negotiators appointed by the A.F. of L. representatives and by the Company with the third impartial negotiator selected by them, shall be made by a majority vote and shall have the same force and effect as a decision of the Relations Committee and shall be final and binding upon the Company and upon its employees and their representatives.

It is agreed that arbitration expense shall be equally divided between the Company and the A.F. of L. groups represented upon the Relations Committee.

A few excerpts from the minutes of one of the meetings of the Relations Committee given below indicate how this method of joint settlement of grievances works out in practice:

Mr. . . . requested that . . . be considered for an increase. Upon investigation it appeared that . . . work is satisfactory but that he has little responsibility for planning or for engineering operations. The Company's advice to the Union was to encourage . . . to prepare himself for more responsible work. In the meantime, in recognition of his satisfactory services, the Company agreed to recommend a 5¢ per hour increase.

Mr. . . . also requested an increase for . . . , maintenance machinist. Investigation indicated that . . . record did not justify giving him an increase in that he had not shown either initiative or speed in carrying out his assignments. The Company agreed, however, to recommend increase of his rate from 87½¢ per hour to 90¢ per hour to determine whether a wage increase might act as a stimulus to improve his work.

Mr. . . . requested an increase for . . . , now earning 62½¢ per hour. After investigation the Company agreed that he merited an increase and agreed to recommend an increase to 67½¢ per hour.

It was agreed that further consideration should be given to specifying those days of the year which are to be considered holidays and for which overtime is to be paid if work is done. Decision was deferred until later meetings.

Wages and the Cost of Living

MANUFACTURING ACTIVITY rose in October for the third consecutive month, as shown in the reports received by THE CONFERENCE BOARD from the 25 manufacturing industries covered in its regular monthly survey.

MAN HOURS WORKED

Total man hours worked were 6.7% higher in October than in September, owing to increases both in

employment and in the number of hours worked per week. In all but four of the industries, advances in total man hours worked were reported. The metal and machinery industries led in magnitude of increase: iron and steel, 18.8%; foundries, 16.4%; automobiles, 12.3%; hardware and small parts, 12.2%; and electrical manufacturing, 7.1%. The increase in man hours in the automobile industry was accompanied by a 9.9% rise in rubber manufacturing. Greater than seasonal advances of 12.5% in the woolen and worsted goods in-

EARNINGS AND HOURS, ALL WAGE EARNERS

OCTOBER, 1939

INDUSTRY	Average Earnings				Average Hours per Week per Wage Earner			
	Hourly		Weekly		Actual		Nominal	
	Oct.	Sept.	Oct.	Sept.	Oct.	Sept.	Oct.	Sept.
Agricultural implement.....	\$.804	\$.803	\$30.62	\$30.46	38.1	37.9	40.0	40.1
Automobile ¹.....	.952	.968	35.60	35.62	37.4	36.8	40.0	40.0
Boot and shoe.....	.531	.534	18.38	18.26	34.6	34.2	40.2	40.2
Chemical.....	.762	.758	30.55	30.16	40.1	39.8	40.1	40.1
Cotton—North.....	.487	.487	18.87	18.32	38.8	37.6	39.9	39.9
Electrical manufacturing.....	.785	.794	30.85	30.66	39.3	38.6	39.8	39.8
Furniture ².....	.664	.663	26.98	26.53	40.6	40.0	40.9	40.9
Hosiery and knit goods.....	.554	.545	20.83	20.25	37.6	37.2	40.1	40.0
Iron and steel ³.....	.846	.846	32.15	29.61	38.0	35.0	40.2	40.2
Leather tanning and finishing.....	.660	.652	26.08	25.30	39.5	38.8	40.2	40.2
Lumber and millwork.....	.678	.672	27.95	27.38	41.2	40.7	42.0	42.0
Meat packing.....	.698	.694	27.58	28.35	39.5	40.8	40.4	40.4
Paint and varnish.....	.729	.724	30.69	30.36	42.1	41.9	40.6	40.7
Paper and pulp.....	.645	.642	27.92	27.12	43.3	42.2	41.3	41.3
Paper products.....	.610	.611	25.35	24.76	41.5	40.5	40.3	40.4
Printing—book and job.....	.823	.833	32.51	33.38	39.5	40.1	40.1	40.0
Printing—news and magazine.....	.977	.966	36.17	36.46	37.0	37.7	39.6	39.6
Rubber.....	.878	.862	32.97	31.26	37.6	36.2	38.2	38.2
1. Rubber tires and tubes.....	1.019	1.008	38.34	35.58	37.6	35.3	37.4	37.4
2. Other rubber products.....	.695	.691	26.05	25.86	37.5	37.4	39.3	39.3
Silk.....	.513	.510	18.60	18.87	36.3	37.0	40.3	40.3
Wool.....	.595	.603	21.72	20.94	36.5	34.7	40.3	40.3
Foundries and machine shops.....	.744	.737	29.84	28.92	40.1	39.2	40.3	40.2
1. Foundries.....	.752	.745	28.78	26.69	38.3	35.8	40.4	40.2
2. Machines and machine tools.....	.755	.752	32.47	31.64	43.0	42.1	41.0	41.0
3. Heavy equipment.....	.776	.783	29.98	30.44	38.6	38.9	40.1	40.1
4. Hardware and small parts.....	.693	.668	28.44	26.61	41.0	39.8	40.4	40.3
5. Other products.....	.743	.732	29.34	28.36	39.5	38.7	39.8	39.8
25 INDUSTRIES.....	\$.724	\$.722	\$28.24	\$27.58	39.0	38.2	40.3	40.3
Cement.....	\$.693	\$.694	\$27.44	\$26.86	39.6	38.7	39.4	39.4
Petroleum refining.....	.979	.977	36.22	36.46	37.0	37.3	36.0	36.0
27 INDUSTRIES.....	\$.727	\$.725	\$28.33	\$27.69	39.0	38.2	40.3	40.2

NOTE: The wage data here given are for cash payments only and do not take into consideration the value of such wage equivalents as reduced or free house rents or other special services rendered by the company to employees. Various forms of wage equivalents are in use in industrial establishments in many localities, but the part which they play as compensation for work performed cannot be taken into account in a study of this character.

¹Based on data collected by the Automobile Manufacturers Association and THE CONFERENCE BOARD.

²Includes wood, metal, and upholstered household and office furniture.

³Based on data collected by the American Iron and Steel Institute and THE CONFERENCE BOARD.

CHANGES IN THE COST OF LIVING, OCTOBER, 1939

Item	Relative Importance in Postwar Family Budget	Indexes, 1923=100			Percentage Changes	
		October, 1939	September, 1939	October, 1938	September, 1939 to October, 1939	October, 1938 to October, 1939
Food ¹	33	80.1	80.7	79.8	-0.7	+0.4
Housing.....	20	86.6	86.5	86.6	+0.1	0
Clothing.....	12	72.6	72.2	73.2	+0.6	-0.8
Men's clothing.....		79.1	78.5	79.0	+0.8	+0.1
Women's clothing.....		66.1	65.9	67.4	+0.3	-1.9
Fuel and light.....	5	85.2	84.4	85.6	+0.9	-0.5
Coal.....		84.3	83.0	85.1	+1.6	-0.9
Gas and electricity.....		87.1	87.1	86.5	0	+0.7
Sundries.....	30	96.8	97.0	96.8	-0.2	0
WEIGHTED AVERAGE OF ALL ITEMS....	100	85.8	85.9	85.8	-0.1	0
PURCHASING VALUE OF DOLLAR.....		116.6	116.4	116.6	+0.2	0

¹Based on food price indexes of the United States Bureau of Labor Statistics, October 17, 1939, September 19, 1939 and October 18, 1938.

INDEXES OF EARNINGS, EMPLOYMENT, MAN HOURS, AND PAYROLLS, ALL WAGE EARNERS

OCTOBER, 1939

1923=100

INDUSTRY	Average Earnings						Employment	Total Man Hours Worked		Payrolls		
	Hourly, Actual		Weekly									
			Actual		Real							
	Oct.	Sept.	Oct.	Sept.	Oct.	Sept.	Oct.	Sept.	Oct.	Sept.	Oct.	Sept.
Agricultural implement.....	144.6	144.4	111.3	110.7	129.7	128.9	101.2	97.7	77.9	74.8	112.6	108.2
Automobile ¹	150.6	153.2	118.1	118.2	137.6	137.6	99.2	89.9	77.8	69.3	117.2	106.3
Boot and shoe.....	107.3	107.9	81.3	80.8	94.8	94.1	90.5	93.9	68.7	70.4	73.6	75.9
Chemical.....	150.6	149.8	113.5	112.1	132.3	130.5	119.5	115.9	90.1	86.7	135.6	129.9
Cotton—North.....	109.4	109.4	88.8	86.3	103.5	100.5	45.2	42.9	36.7	33.8	40.1	37.0
Electrical manufacturing.....	138.2	139.8	113.9	113.2	132.8	131.8	91.2	86.6	75.0	70.0	103.9	98.0
Furniture ²	128.4	128.2	108.2	106.4	126.1	123.9	85.7	83.3	72.2	69.1	92.7	88.6
Hosiery and knit goods.....	145.0	142.7	117.9	114.6	137.4	133.4	115.3	115.5	93.6	92.7	135.9	132.4
Iron and steel ³	141.9	141.9	94.0	86.5	109.6	100.7	112.0	102.3	73.8	62.1	105.3	88.5
Leather tanning and finishing.....	135.8	134.2	112.6	109.2	131.2	127.1	84.3	82.2	70.0	67.0	94.9	89.8
Lumber and millwork.....	143.3	142.1	119.3	116.9	139.0	136.1	69.0	67.1	57.4	55.2	82.3	78.4
Meat packing.....	147.6	146.7	117.2	120.4	136.6	140.2	99.4	98.5	79.0	80.9	116.5	118.6
Paint and varnish.....	136.5	135.6	115.5	114.3	134.6	133.1	130.9	128.3	110.6	107.9	151.2	146.6
Paper and pulp.....	128.0	127.4	107.1	104.0	124.8	121.1	112.0	109.1	93.6	88.9	120.0	113.5
Paper products.....	133.8	134.0	116.4	113.7	135.7	132.4	135.9	130.6	118.5	111.1	158.2	148.5
Printing—book and job.....	126.0	127.6	108.5	111.5	126.5	129.8	100.0	97.4	86.1	85.1	108.5	108.6
Printing—news and magazine.....	141.0	139.4	115.8	116.7	135.0	135.9	120.0	119.9	98.6	100.5	139.0	139.9
Rubber.....	140.3	137.7	117.6	111.5	137.1	129.8	78.3	74.0	65.7	59.8	92.1	82.5
Silk.....	103.4	102.8	80.8	81.9	94.2	95.3	96.4	96.1	75.3	76.5	77.9	78.7
Wool.....	117.8	119.4	90.6	87.4	105.6	101.7	80.9	75.5	62.1	55.2	73.3	66.0
Foundries and machine shops.....	129.8	128.6	105.2	101.9	122.6	118.6	89.7	85.8	72.5	67.8	94.4	87.4
1. Foundries.....	127.5	126.3	97.2	90.1	113.3	104.9	67.7	62.3	51.7	44.4	65.8	56.1
2. Machines and machine tools.....	137.5	137.0	118.9	115.9	138.6	134.9	100.0	96.1	86.3	81.2	118.9	111.4
3. Heavy equipment.....	115.8	116.9	90.8	92.2	105.8	107.3	61.1	60.3	47.8	47.6	55.5	55.6
4. Hardware and small parts.....	135.4	130.5	114.6	107.3	133.6	124.9	111.1	102.0	93.9	83.7	127.3	109.4
5. Other products.....	132.7	130.7	107.4	103.8	125.2	120.8	104.9	101.8	84.9	80.7	112.7	105.7
25 INDUSTRIES.....	133.8	133.5	106.1	103.6	123.7	120.6	92.5	88.7	73.4	68.8	98.1	91.9

NOTE: No basic 1923 data are available, hence no indexes are given for the following: rubber tires and tubes, other rubber products, cement, petroleum refining, and "27 industries."

¹Based on data collected by the Automobile Manufacturers Association and THE CONFERENCE BOARD.

²Includes wood, metal, and upholstered household and office furniture.

³Based on data collected by the American Iron and Steel Institute and THE CONFERENCE BOARD.

dustry and 8.6% in the Northern cotton industry also occurred.

EMPLOYMENT PAYROLLS

In October, 4.3% more workers were employed than in September, 15.8% more than a year ago, and only 8.4% fewer than in 1929. Total payroll disbursements were 6.7% higher than in September, 24.8% higher than in October, 1938, and only 9.5% below the 1929 peak. As in the case of man hours, the iron and steel, foundries and automobile industries showed the greatest increases from September to October. These increases were 19.0% in payrolls and 9.5% in employment for iron and steel and 17.3% in payrolls and 8.7% in employment for foundries. The automobile industry reported rises of 10.3% in both employment and payrolls.

HOURLY EARNINGS

Hourly earnings were 72.4 cents in October, as compared with 72.2 cents in September. They were 1.3% higher than a year ago and 22.7% higher than in 1929.

AVERAGE WORK WEEK

The average number of hours worked per week in 25 industries rose from 38.2 in September to 39.0 in October, an increase of 2.1%. Although these hours were 6.0% higher than in October, 1938, they were 19.3% below those in 1929. Twenty of the industries reported increases in the hours worked. Iron and steel hours increased 8.6%, foundries, 7%, and rubber tires and tubes, 6.5%. The greatest decrease between September and October, one of 3.2%, occurred in the meat packing industry.

EARNINGS AND HOURS, ALL MALE AND FEMALE WAGE EARNERS

OCTOBER, 1939

INDUSTRY	ALL MALE						FEMALE					
	Average Earnings				Average Hours per Week per Wage Earner		Average Earnings				Average Hours per Week per Wage Earner	
	Hourly		Weekly				Hourly		Weekly			
	Oct.	Sept.	Oct.	Sept.	Oct.	Sept.	Oct.	Sept.	Oct.	Sept.	Oct.	Sept.
Agricultural implement.....	\$.809	\$.807	\$30.82	\$30.64	38.1	38.0	\$.554	\$.576	\$20.65	\$21.01	37.3	36.5
Automobile ¹.....	.963	.979	36.02	36.03	37.4	36.8	.692	.709	25.53	26.80	36.9	37.8
Boot and shoe.....	.593	.597	20.79	20.95	35.1	35.1	.432	.434	14.33	14.28	33.2	32.9
Chemical.....	.795	.791	31.89	31.56	40.1	39.9	.541	.537	21.16	21.14	39.1	39.4
Cotton—North.....	.532	.533	21.45	20.86	40.3	39.2	.421	.421	15.43	14.98	36.7	35.6
Electrical manufacturing.....	.846	.853	33.54	33.17	39.6	38.9	.555	.560	21.11	21.04	38.1	37.5
Furniture ².....	.675	.674	27.54	27.09	40.8	40.2	.484	.493	18.34	18.44	37.9	37.4
Hosiery and knit goods.....	.694	.697	27.96	27.36	40.3	39.3	.443	.427	16.19	15.52	36.5	36.3
Iron and steel ³.....	.846	.846	32.15	29.61	38.0	35.0	.....	.....	.....	.....	.....	.....
Leather tanning and finishing.....	.688	.678	27.32	26.41	39.7	38.9	.487	.484	18.65	18.26	38.3	37.7
Lumber and millwork.....	.678	.672	27.95	27.38	41.2	40.7	.....	.....	.....	.....	.....	.....
Meat packing.....	.726	.720	28.85	29.58	39.8	41.1	.539	.554	20.51	21.83	38.0	39.4
Paint and varnish.....	.742	.736	31.46	31.06	42.4	42.2	.529	.533	19.52	20.25	36.9	38.0
Paper and pulp.....	.662	.659	28.77	27.94	43.4	42.4	.433	.427	17.72	17.07	40.9	40.0
Paper products.....	.679	.678	28.70	28.13	42.3	41.5	.453	.449	18.08	17.22	39.9	38.4
Printing—book and job.....	.916	.920	37.40	38.06	40.9	41.4	.516	.513	18.88	18.77	36.6	36.6
Printing—news and magazine.....	1.028	1.018	38.35	38.60	37.3	37.9	.581	.575	20.28	20.93	34.9	36.4
Rubber.....	.971	.954	36.86	34.83	38.0	36.5	.581	.575	20.89	20.22	36.0	35.2
1. Rubber tires and tubes.....	1.060	1.045	40.15	37.28	37.9	35.7	.723	.714	25.73	23.40	35.6	32.8
2. Other rubber products.....	.803	.796	30.56	30.30	38.1	38.1	.524	.526	18.91	18.99	36.1	36.1
Silk.....	.581	.587	21.24	21.64	36.6	36.9	.390	.376	13.93	14.01	35.7	37.2
Wool.....	.643	.646	24.17	23.62	37.6	36.6	.506	.522	17.47	16.46	34.5	31.5
Foundries and machine shops.....	.763	.756	30.72	29.73	40.3	39.4	.488	.482	18.76	18.13	38.5	37.6
1. Foundries.....	.755	.749	29.00	26.83	38.4	35.8	.570	.567	20.75	19.34	36.4	34.1
2. Machines and machine tools.....	.760	.758	32.77	31.91	43.1	42.1	.508	.515	19.94	20.56	39.2	39.9
3. Heavy equipment.....	.776	.783	29.98	30.44	38.6	38.9	.....	.....	.....	.....	.....	.....
4. Hardware and small parts.....	.729	.701	30.16	28.10	41.4	40.1	.475	.459	18.65	17.66	39.2	38.4
5. Other products.....	.779	.766	30.93	29.84	39.7	38.9	.488	.487	18.56	18.06	38.0	37.1
25 INDUSTRIES.....	\$.769	\$.767	\$30.30	\$29.58	39.5	38.7	\$.478	\$.476	\$17.42	\$17.06	36.4	35.8
Cement.....	\$.693	\$.694	\$27.44	\$26.86	39.6	38.7	.....	.....	.....	.....	.....	.....
Petroleum refining.....	.979	.977	36.22	36.46	37.0	37.3	.....	.....	.....	.....	.....	.....
27 INDUSTRIES.....	\$.771	\$.770	\$30.37	\$29.66	39.5	38.7	.....	.....	.....	.....	.....	.....

¹Based on data collected by the Automobile Manufacturers Association and THE CONFERENCE BOARD.

²Includes wood, metal, and upholstered household and office furniture.

³Based on data collected by the American Iron and Steel Institute and THE CONFERENCE BOARD.

EARNINGS AND HOURS, UNSKILLED AND SKILLED AND SEMISKILLED MALE WAGE EARNERS

OCTOBER, 1939

INDUSTRY	UNSKILLED						SKILLED AND SEMISKILLED					
	Average Earnings				Average Hours per Week per Wage Earner		Average Earnings				Average Hours per Week per Wage Earner	
	Hourly		Weekly				Hourly		Weekly			
	Oct.	Sept.	Oct.	Sept.	Oct.	Sept.	Oct.	Sept.	Oct.	Sept.	Oct.	Sept.
Agricultural implement.....	\$.663	\$.653	\$24.72	\$24.08	37.3	36.9	\$.829	\$.828	\$31.66	\$31.54	38.2	38.1
Automobile ¹.....	.807	.791	30.42	28.32	37.7	35.8	.971	.989	36.32	36.49	37.4	36.9
Boot and shoe.....	.437	.438	17.65	17.56	40.4	40.1	.600	.604	20.94	21.08	34.9	34.9
Chemical.....	.698	.700	28.40	28.17	40.7	40.3	.833	.826	33.22	32.83	39.9	39.7
Cotton—North.....	.484	.483	19.65	18.58	40.6	38.5	.551	.550	22.17	21.68	40.2	39.4
Electrical manufacturing.....	.674	.678	26.02	26.44	38.6	39.0	.865	.872	34.34	33.92	39.7	38.9
Furniture ².....	.547	.557	23.03	23.28	42.1	41.8	.707	.703	28.63	27.98	40.5	39.8
Hosiery and knit goods.....	.463	.460	19.54	19.22	42.2	41.8	.713	.715	28.60	27.97	40.1	39.1
Iron and steel ³.....	.640	.640 ^r	23.68	22.59 ^r	37.0	35.3 ^r	.882	.882 ^r	33.69	30.78 ^r	38.2	34.9 ^r
Leather tanning and finishing.....	.573	.556	21.97	21.45	38.3	38.6	.711	.705	28.45	27.30	40.0	38.7
Lumber and millwork.....	.487	.485	20.66	20.20	42.5	41.6	.752	.744	30.81	30.05	41.0	40.4
Meat packing.....	.626	.622	25.01	25.75	40.0	41.4	.777	.769	30.81	31.52	39.6	41.0
Paint and varnish.....	.630	.632	26.59	26.73	42.2	42.3	.803	.792	34.13	33.42	42.5	42.2
Paper and pulp.....	.544	.544	22.92	22.30	42.2	41.0	.705	.700	30.95	30.02	43.9	42.9
Paper products.....	.537	.534	23.18	22.67	43.1	42.4	.741	.741	31.07	30.45	41.9	41.1
Printing—book and job.....	.543	.551	23.49	24.32	43.3	44.2	1.021	1.030	41.07	41.83	40.2	40.6
Printing—news and magazine.....	.627	.618	21.97	22.65	35.0	36.6	1.116	1.107	42.24	42.29	37.8	38.2
Rubber.....	.671	.671	24.80	25.13	37.0	37.5	.980	.963	37.22	35.13	38.0	36.5
1. Rubber tires and tubes.....	.768	.767	27.42	28.11	35.7	36.6	1.066	1.053	40.46	37.51	37.9	35.6
2. Other rubber products.....	.568	.562	21.80	21.61	38.4	38.4	.812	.806	30.92	30.65	38.1	38.0
Wool.....	.528	.530	20.02	19.70	37.9	37.2	.704	.708	26.33	25.68	37.4	36.3
Foundries and machine shops.....	.640	.634	25.50	24.71	39.8	39.0	.786	.778	31.73	30.64	40.4	39.4
1. Foundries.....	.623	.618	24.38	22.98	39.1	37.2	.810	.803	30.86	28.35	38.1	35.3
2. Machines and machine tools.....	.585	.581	24.59	24.00	42.0	41.3	.776	.774	33.80	32.84	43.5	42.4
3. Heavy equipment.....	.612	.624	23.74	23.80	38.8	38.2	.802	.807	30.98	31.48	38.6	39.0
4. Hardware and small parts.....	.601	.579	24.50	22.64	40.8	39.1	.743	.717	30.99	28.84	41.7	40.2
5. Other products.....	.714	.704	28.22	27.97	39.5	39.7	.793	.779	31.52	30.20	39.8	38.8
24 INDUSTRIES ⁴	\$.601	\$.598 ^r	\$23.98	\$23.41 ^r	40.1	39.4 ^r	\$.811	\$.810	\$31.93	\$31.09 ^r	39.4	38.5
Cement.....	\$.591	\$.587	\$22.60	\$21.67	38.3	36.9	\$.714	\$.714	\$28.43	\$27.89	39.8	39.1
Petroleum refining.....	.699	.690	25.93	25.94	37.1	37.6	1.028	1.028	38.04	38.24	37.0	37.2
26 INDUSTRIES ⁴	\$.601	\$.598 ^r	\$23.99	\$23.42 ^r	40.1	39.3 ^r	\$.814	\$.813	\$32.01	\$31.19 ^r	39.4	38.5 ^r

¹Based on data collected by the Automobile Manufacturers Association and THE CONFERENCE BOARD.²Includes wood, metal, and upholstered household and office furniture.³Based on data collected by the American Iron and Steel Institute and THE CONFERENCE BOARD.⁴Silk industry not included, as adequate data for unskilled and skilled groups are not available for this industry.^rRevised.

AVERAGE WEEKLY EARNINGS

Average weekly earnings of \$28.24 in October were only 1.1% below the 1929 average. They were 2.4% higher than in September and 7.8% higher than a year ago. The index of real weekly earnings, i.e., weekly earnings adjusted for changes in the cost of living, reached an all-time high of 123.7. They are 2.6% higher than in September, 7.8% higher than a year ago, and 15.4% higher than in 1929.

COST OF LIVING

THE CONFERENCE BOARD index of the cost of living of wage earners in October was 85.8 (1923=100), the

same as in October, 1938, as compared with the September index of 85.9 for both years. Between September 15 and October 15, it decreased only 0.1%. Reduced prices of food and sundries accounted for this decrease, but all other items included in a wage earner's budget rose in price, most of them seasonally. Living costs in October were 14.3% lower than the 1929 average, and 19.7% above the low point of 1933.

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